RECORD AND BRIEF

No. 15-680

Supreme Court, U.S.
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In The
Supreme Court of the United States

GOLDEN BETHUNE-HILL, et al.,

Appellants,

v.

VIRGINIA STATE BOARD OF ELECTIONS, et al.,

Appellees.

On Appeal from the United States District Court For The Eastern District of Virginia

BRIEF OF POLITICAL SCIENTISTS THOMAS L. BRUNELL, CHARLES S. BULLOCK III, AND RONALD KEITH GADDIE AS *AMICI CURIAE* IN SUPPORT OF APPELLEES

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BRIEF OF POLITICAL SCIENTISTS THOMAS L. BRUNELL, CHARLES S. BULLOCK III, AND RONALD KEITH GADDIE AS *AMICI CURIAE* IN SUPPORT OF APPELLEES

INTEREST OF *AMICI CURIAE*[1]

Amici curiae are political scientists who are experts on redistricting, politics in the American South and in particular the southern States covered under Sections 4 and 5 of the federal Voting Rights Act, and the statistical methods for estimating voting behavior. *Amici* have served as experts in litigation under Sections 2 and 5 of the federal Voting Rights Act, and for legislatures and other entities involved in redistricting to assist in the development of state and federal redistricting plans.

As recognized experts in the fields of voting rights and redistricting, *amici curiae* believe the Court would

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[1] Pursuant to this Court's Rule 37.3(a), *amici* state that appellant and appellees have filed letters with the Clerk granting blanket consent to the filing of *amicus* briefs. Pursuant to this Court's Rule 37.6, *amici* state that this brief was not authored in whole or in part by counsel for any party. The State Government Leadership Foundation, a nonprofit organization based in Washington, D.C., dedicated to educating policymakers and the public about the benefits of smaller government, lower taxes, balanced budgets and efficient governing in the states in accordance with the Constitution, while providing strategic legal advice and support in redistricting cases around the country to ensure fair and competitive district lines, made a monetary contribution intended to fund the preparation or submission of this brief. No other person or entity other than *amici* or their counsel, made such a monetary contribution.

benefit from a discussion of whether statistical techniques for estimating voting behavior, in the context of redistricting, can pinpoint the percentage at which a majority-minority district tips from one that provides a real opportunity to elect a chosen candidate, to one that is ineffective, on the one hand, or one that wastes minority votes, on the other.

Thomas L. Brunell is Professor of Political Science, School of Economic, Political and Policy Sciences, at the University of Texas at Dallas. Professor Brunell is the author of numerous scholarly publications including, among many others:

- Thomas L. Brunell, *Redistricting and Representation: Why Competitive Elections are Bad for America* (Routledge 2008);
- Thomas L. Brunell, *The One Person, One Vote Standard in Redistricting: The Uses and Abuses of Population Deviations in Legislative Redistricting*, 62 CASE W. RES. L. REV. 1057 (2012);
- David Lublin, Thomas L. Brunell, Bernard Grofman, and Lisa Handley, *Has the Voting Rights Act Outlived Its Usefulness? In a Word "No,"* 34 LEGIS. STUD. Q. 525 (2009);
- Thomas L. Brunell, *What to Do About Turnout Bias in American Elections? A Response to Wink and Weber*, 27 AM. REV. OF POL. 255 (2006); and
- Thomas L. Brunell, *Rethinking Redistricting: How Drawing Uncompetitive Districts Eliminates Gerrymanders, Enhances Representation,*

and Improves Attitudes Toward Congress, 39 PS: POL. SCI. & POL. 77 (2006).

Professor Brunell's *curriculum vitae* can be viewed here: http://www.utdallas.edu/~tbrunell/papers/vita.pdf. Some of the numerous voting rights and redistricting matters on which Professor Brunell has consulted are listed on page 14.

Charles S. Bullock III holds the Richard B. Russell Chair in Political Science and is Josiah Meigs Distinguished Teaching Professor and University Professor at the University of Georgia. Professor Bullock's teaching and research specialties are legislative politics and southern politics. Professor Bullock is author, co-author, editor or co-editor of 30 books and more than 150 articles. He has published in major political science, public administration and education journals. Among his most recent books are:

- Charles S. Bullock III, Ronald Keith Gaddie & Justin J. Wert, THE RISE AND FALL OF THE VOTING RIGHTS ACT (Univ. of Okla. Press 2016);
- Charles S. Bullock III, REDISTRICTING: THE MOST POLITICAL ACTIVITY IN AMERICA (Rowman & Littlefield 2010);
- THE NEW POLITICS OF THE OLD SOUTH (Charles S. Bullock & Mark J. Rozell eds., Rowman & Littlefield, 5th ed. 2014);
- Charles S. Bullock III & Ronald Keith Gaddie, THE TRIUMPH OF VOTING RIGHTS IN THE SOUTH (Univ. of Okla. Press 2009);

- Charles S. Bullock III & Ronald Keith Gaddie, GEORGIA POLITICS IN A STATE OF CHANGE (Pearson, 1st-3d eds., 2010, 2012 & 2013); and
- OXFORD HANDBOOK OF SOUTHERN POLITICS (Oxford Univ., 2d ed. 2012).

Professor Bullock's *curriculum vitae* can be viewed here: http://spia.uga.edu/wp-content/uploads/2016/04/2016-bullock-Vitae.pdf, which lists, starting on page 84, the litigation, including voting rights litigation, on which he has consulted or testified.

Ronald Keith Gaddie (Ph.D., Georgia, 1993) is President's Associates Presidential Professor and chair of the Department of Political Science at the University of Oklahoma. Professor Gaddie's current research focuses on the measurement of opinion formation and preference ordering as well as other methodological social science issues. He studies the role of race, ethnicity, and culture in preference formation and perceptual and real bias in voting rights, and how institutional, legal, and systemic ordering relate to bias in allocating collective and public goods. Professor Gaddie is also general editor of the *Social Science Quarterly*. His recent publications include, among many others:

- Thomas R. Dye & Ronald Keith Gaddie, POLITICS IN AMERICA (Pearson, 10th-12th eds., 2014, 2016 & 2018);
- Charles S. Bullock III, Ronald Keith Gaddie & Justin J. Wert, THE RISE AND FALL OF THE VOTING RIGHTS ACT (Univ. of Okla. Press 2016);
- Charles S. Bullock III & Ronald Keith Gaddie, GEORGIA POLITICS IN A STATE OF CHANGE (Pearson, 1st-3d eds., 2010, 2012 & 2013); and

- Charles S. Bullock III & Ronald Keith Gaddie, THE TRIUMPH OF VOTING RIGHTS IN THE SOUTH (Univ. of Okla. Press 2009).

Professor Gaddie's *curriculum vitae* can be viewed here: http://psc.ou.edu/Websites/psc/images/gaddievita2015.pdf.

SUMMARY OF ARGUMENT

In *Ala. Legis. Black Caucus v. Alabama*, 135 S. Ct. 1257 (2015), this Court squarely held that:

> ***[W]e do not insist that a legislature guess precisely what percentage reduction a court or the Justice Department might eventually find to be retrogressive. The law cannot insist that a state legislature, when redistricting, determine precisely what percent minority population §5 demands.*** The standards of §5 are complex; they often require evaluation of controverted claims about voting behavior; the evidence may be unclear; and, with respect to any particular district, judges may disagree about the proper outcome. ***The law cannot lay a trap for an unwary legislature, condemning its redistricting plan as either (1) unconstitutional racial gerrymandering should the legislature place a few too many minority voters in a district or (2) retrogressive under §5 should the legislature place a few too few.*** *See Vera*, 517 U.S., at 977, 116

> S. Ct. 1941, 135 L. Ed. 2d 248 (principal opinion). Thus, we agree with the United States that a court's analysis of the narrow tailoring requirement insists only that the legislature have a "strong basis in evidence" in support of the (race-based) choice that it has made.

Id. at 1273-74 (emphasis added).

The wisdom of this holding cannot be overstated. Given the realities of the legislative redistricting process – both the time limitations involved (particularly here, where the redistricting had to be completed and precleared for elections in the same year that the Census was released[2]) and (especially) the inherent limitations in the data and techniques available for judging voting behavior – perfection cannot reasonably be expected. And yet Appellants in this case are demanding exactly the kind of precise "guessing" that this Court disclaimed. While conceding that it was necessary for the districts challenged in this case ("Challenged Districts") to maintain 50% Black voting age population ("BVAP"),[3] Appellants fault the Virginia state legislature for endeavoring to maintain 55% BVAP in the Challenged Districts and for failing to do an unspecified something, that might more precisely determine

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[2] *See* Trial Tr. 277:6-8 (Del. Jones) ("Q. Do you know of any state that has a shorter time frame for doing this process than Virginia? A. There are none to my knowledge.").

[3] *See Bethune-Hill v. Va. State Bd. of Elections*, 141 F. Supp. 3d 505, 527 n.13 (E.D. Va. 2015) (three-judge court) ("counsel for Plaintiffs has claimed that there must be a floor of '50 percent plus one' under Section 2 of the VRA. Trial Tr. 842:17-19 (Plaintiffs).").

where between 50% and 55% a given district's BVAP percentage must fall to avoid undermining Black voters' ability to elect their preferred candidates.

Inherent in Appellants' position is the notion that there is some magical technique by which one could discern the precise point between 50% BVAP and 55% BVAP at which a given district "tips" from an effective minority voting district to an ineffective one. That is simply not the case. Even the most sophisticated statistical techniques available for predicting voting behavior – advanced regression analyses of the kind conducted by *amici* and often used in voting rights cases – are incapable of providing anything like that level of exactness. At best, regression analysis provides *estimates* of voting preferences, surrounded by margins of error, and always based on data containing acknowledged errors. As observed by redistricting expert Nathaniel Persily (in a law review article cited with approval by this Court in *Ala. Legis. Black Caucus*, *see* 135 S. Ct. at 1273),

> "[W]e should all take with a grain of salt the precision with which experts can assign probabilities to redrawn districts based on past election behavior. Experts might be able to differentiate easily between 100% and 0% ability-to-elect districts, but no expert can assess with scientific accuracy the difference between a district with a 30% probability of electing a minority-preferred candidate and one with a 40% probability."

Nathaniel Persily, *The Promise and Pitfalls of the New Voting Rights Act*, 117 YALE L.J. 174, 250-51 (2007) (footnote omitted).

In this case, the opinion below reflects that the Virginia Legislature conducted a "functional analysis" of voting patterns in the Challenged Districts,[4] to discern the approximate threshold of Black voting power above 50% BVAP that would be required to avoid dismantling the effectiveness of existing majority-minority seats. The Legislature relied on the types of evidence that have long been relied upon by legislatures and the courts in assessing voting behavior. Despite Appellants' contrary implication, there is no additional appropriate science that could more precisely target the exact threshold required to ensure that minority voters' voting power is not undermined.

ARGUMENT

Section 5 of the Voting Rights Act as it was in effect at the time of the 2011 redistricting in Virginia prohibited a covered state from redrawing effective majority-minority voting districts in a way that would "have the effect of diminishing the ability of any citizens of the United States on account of race or color, or [language minority status], to elect their preferred candidates of choice." 52 U.S.C. § 10304(b). It is undisputed in this case that maintaining an existing, effective majority-minority district's "ability to elect" meant

[4] *Bethune-Hill*, 141 F. Supp. 3d at 511, 558-59.

that the Challenged Districts must maintain *at least* 50% BVAP; indeed, Appellants concede as much.[5]

But while it is necessary to maintain 50% BVAP, the courts have historically recognized that the 50% threshold does not necessarily ensure that a given district will be "effective" for minority voters. *See, e.g.*, *Ketchum v. Byrne*, 740 F.2d 1398, 1413 (7th Cir. 1984) (noting the "widely accepted understanding . . . that minorities must have something more than a mere majority even of voting age population in order to have a reasonable opportunity to elect a representative of their choice."); *Jeffers v. Tucker*, 847 F. Supp. 655, 660 (E.D. Ark. 1994) (three-judge district court) (in fashioning a remedy, "the creation of districts with bare majorities is not enough for a complete remedy."); *see also* Bullock & Gaddie, *supra*, *Ch. 5: Virginia* in THE TRIUMPH OF VOTING RIGHTS IN THE SOUTH at 141-163 (documenting the historically low Black registration and turnout rates, which lag behind white participation levels in the Commonwealth, and often lag behind Black participation in the rest of the United States).[6]

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[5] *See* note 2, *supra*.

[6] The need to have stronger minority districts than a bare majority is even more pronounced for Latinos, who – in addition to comparative youth and generally lower electoral participation rates – have a sizable percentage of noncitizens. These persons are counted in the Census estimates of voting age population but cannot vote. Creating districts that will be effective for Latino voters is further complicated by the inability to precisely calculate citizenship rates, as discussed below. *See* notes 9 & 12-13, *infra*.

In this case, the Virginia Legislature used a 55% BVAP guideline to determine which districts are "effective" minority voting districts. Appellants object to that guideline, suggesting that the State had an obligation to more precisely identify the percentage of BVAP needed for each district, but there is no means by which one could accurately discern where, in the range between 50% and 55% BVAP, a district suddenly switches from "effective" to "ineffective" for minority voters and vice versa.

I. THE EVIDENCE THAT THE VIRGINIA LEGISLATURE RELIED ON IN SETTING THE 55% BVAP THRESHOLD IS THE SORT REGULARLY RELIED UPON BY LEGISLATURES AND COURTS.

In determining that 55% BVAP was necessary to maintain the Challenged Districts as effective majority-minority "ability to elect" districts, the Virginia legislature relied on demographic and electoral data and trends, and on the knowledge of the chief mapmaker and the incumbent legislators most familiar with their districts.

Taking Challenged District 75 as an example, the opinion of the majority below reflects a thorough functional analysis by a veteran of the Virginia House of Delegates, Delegate Chris Jones, who also played an integral role in the 2001 redistricting. That analysis built on Delegate Jones' own intimate knowledge of the Virginia House of Delegates districts and included the

current demographics of District 75, past elections that had occurred in the district, the outcomes of those elections, registration and turnout rates, the presence and impact of a non-voting prison population within the district, numerous meetings with the incumbent, and responsiveness to the incumbent's views about changes necessary to preserve the ability of African-Americans to elect a chosen candidate in District 75. Based on this analysis, the BVAP in Challenged District 75 was established at 55.4% of the voting age population ("VAP"). *Bethune-Hill*, 141 F. Supp. 3d at 511 and 558-59.[7]

Appellants discount this type of "on-the-ground" functional analysis as insufficient to establish a "solid basis in evidence," but this is precisely the type of evidence that courts and legislatures have long relied upon in determining the effectiveness of minority voting districts. *See Georgia v. Ashcroft*, 539 U.S. 461, 469-71 (2003) (summarizing Georgia's redistricting process);[8] *id.* at 484 (faulting the district court for failing to give

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[7] In addition to very close races in existing District 75 (*see Bethune-Hill*, 141 F. Supp. 3d at 558), Delegate Jones even testified to numerous elections in pre-existing majority-BVAP districts in which Black voters had been unsuccessful in electing their candidates of choice. *See* Jt. Appx. 1968-75 & 1997-98.

[8] It is true that Congress amended Section 5 in 2006 to override this Court's decision in *Ashcroft* insofar as it sanctioned the use of "coalitional" of "influence" districts in assessing the overall impact on a redistricting plan on minority voters' ability to election, but those amendments did not purport to alter the types of evidence pertinent to the inquiry.

sufficient consideration to the views of minority legislators who voted for the project because "representatives of districts created to ensure continued minority participation in the political process have some knowledge about how 'voters will probably act' and whether the proposed change will decrease minority voters' effective exercise of the electoral franchise"); *Sanchez v. Bond*, 875 F.2d 1488, 1494 (10th Cir. 1989) ("The experiences and observations of individuals involved in the political process are clearly relevant to the question of whether the minority group is politically cohesive."); 28 C.F.R. § 51.28 (listing information required for USDOJ to assess a new redistricting plan for possible retrogression); *id.* at subd. (f) (noting the relevance of the opportunity for minority group members to participate in the districting process).

Indeed, the Virginia legislature engaged in a far more nuanced investigation of the necessary threshold for "effectiveness" than many courts have done in adopting redistricting plans over the years. Historically, courts relied on a 65% "rule of thumb," under which Black voters must constitute 65% of the total population (or 60% of the VAP) to form an effective district. Those figures were "derived by augmenting a simple majority with an additional 5% for young population, 5% for low voter registration and 5% for low voter turn-out, for a total increment of 15%" and taking 5% back out where voting age population data were available. *Ketchum*, 740 F.2d at 1415. This rule of

thumb, which has been applied in a host of federal voting rights cases over the years,[9] was not the product of the type of jurisdiction-specific "functional analysis" in which Delegate Jones engaged.

Implicit in Appellants' position – because it is the only other type of evidence that could plausibly have been added to the mix – is a contention that a "solid basis in evidence" can really only be established where States conduct an advanced regression analysis to determine the precise degree of minority cohesion and non-minority bloc voting and crossover voting. However, the courts have repeatedly rejected the proposition that any single method is required to assess

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[9] *See, e.g.*, *Barnett v. City of Chicago*, 141 F.3d 699, 703 (7th Cir. 1998) ("it is a rule of thumb that blacks must be at least 65 percent of the total population of a district in order to be able to elect a black. [Citations.] Likewise, because of both age and the percentage of noncitizens, Latinos must be 65 to 70 percent of the total population in order to be confident of electing a Latino."); *African American Voting Rights Legal Defense Fund, Inc. v. Villa*, 54 F.3d 1345, 1348 n.4 (8th Cir. 1995) (same); *State of Mississippi v. United States*, 490 F. Supp. 569 (D.D.C. 1979) (three-judge panel), *aff'd*, 444 U.S. 1050 (1980) ("it has been generally conceded that, barring exceptional circumstances such as two white candidates splitting the vote, a district should contain a black population of at least 65 percent or a black VAP of at least 60 percent to provide black voters with an opportunity to elect a candidate of their choice."); *United Jewish Organizations of Williamsburgh, Inc. v. Carey*, 430 U.S. 144, 164 (1977) ("it was reasonable for the Attorney General to conclude in this case that a *substantial* nonwhite population majority – in the vicinity of 65% – would be required to achieve a nonwhite majority of eligible voters." (emphasis in original)); *see also Growe v. Emison*, 507 U.S. 25, 39 (1993) (showing of vote dilution would "justify a supermajority districting remedy").

minority and non-minority voting behavior. *See, e.g.*, *Brewer v. Ham*, 876 F.2d 448, 454 (5th Cir. 1989) ("Statistical evidence is not a *sine qua non* to establish cohesion."); *Sanchez*, 875 F.2d at 1493-94; *Pope v. County of Albany*, 687 F.3d 565, 573 n.5 (2d Cir. 2012); *Askew v. City of Rome*, 127 F.3d 1355, 1379 n.9 (11th Cir. 1997).

Moreover, any attempt to refine through regression analysis the appropriate BVAP level for Challenged District 75 (or any other Challenged District) that is below 55%, but above 50%, would have been futile: the science is not designed to, nor appropriate for that task.

II. DUE TO LIMITATIONS INHERENT IN THE AVAILABLE DATA AND TECHNIQUES, EVEN THE MOST SOPHISTICATED REGRESSION TECHNIQUES CANNOT PRECISELY IDENTIFY THE EXACT POINT BETWEEN 50% AND 55% BVAP AT WHICH A DISTRICT BECOMES "EFFECTIVE" FOR VOTING RIGHTS PURPOSES.

Due to the secrecy of the ballot, one cannot know how members of any given racial group actually voted at any given election. Thus, the courts – including this Court in *Thornburg v. Gingles*, 478 U.S. 30 (1986) – have approved of the use of various regression techniques in an attempt to estimate voting behavior. Though there are a number of variations, such as bivariate and multivariate ecological regression and ecological inference, at their most basic level all of these

techniques work in the same manner. First is a determination of the percentage of the relevant population (*e.g.*, African-Americans or Latinos) within a given geographical unit, such as a precinct (the "independent variable"). Then, having determined "how Black" (for example) each precinct is, one then inquires whether there is a correlation between the percentage Black and the known support for each candidate in each precinct as reflected in the official election results (the "dependent variable"). *See* Bullock & Gaddie, *supra*, THE TRIUMPH OF VOTING RIGHTS IN THE SOUTH, *supra*, Appx. A ("Analytic Methods for Estimating Racial Voting Patterns"), for a more detailed description of these techniques. This analysis is used to estimate the level of support for the various candidates by the various racial groups in an election.

It is crucial to remember, however, that though these techniques continue to be improved and refined, at the end of the day they can only provide *estimates* of minority- and non-minority voting behavior within a range ("margin of error" or "confidence interval") that can be relatively narrow or very large, much like public opinion polling provides *estimates* of support in the electorate for various candidates. That being the case, regression analyses, even under optimal conditions, simply cannot predict voting behavior with the level of precision demanded by Appellants. And "optimal conditions" rarely present themselves. Like public opinion polling, the reliability of regression estimates will always depend on the quality of the data fed into the system and upon the accuracy of the assumptions

underlying the analysis. In redrawing districts, a legislature, like a court "should not ignore the imperfections of the data used nor the limitations of statistical analysis." *Overton v. Austin*, 871 F.2d 529, 539 (5th Cir. 1989) (footnote omitted); *Aldasoro v. Kennerson*, 922 F. Supp. 339, 344 (S.D. Cal. 1995) ("these statistical methodologies were not precise and provided only 'estimates' of each group's voting behavior.").

A. Recognized Limitations In The Available Demographic And Electoral Data Contribute To Uncertainty In Estimating Voter Behavior.

To begin with, there are a number of well-recognized limitations in the available demographic and electoral data available for redistricting and regression analysis.

1. The "fiction" of the accuracy of Census data.

The main source of demographic data available for redistricting and regression analyses are population figures acquired from the decennial Census, by total population and voting age population, broken down by racial group. While these data are more accurate than the data from many other sources, being a complete enumeration of the population, it is still no secret that the Census data are inaccurate and that the inaccuracies disproportionately affect certain groups, particularly minority racial groups. *See Dept. of Commerce v. United States House of Representatives*, 525 U.S. 316

(1999) (discussing the "undercount" of minority voters); Brunell, *supra*, 62 CASE W. RES. L. REV. at 1062 (citing Benjamin J. Razi, Comment, *Census Politics Revisited: What to Do When the Government Can't Count?*, 48 AM. U. L. REV. 1101, 1105-11 (1999) (describing various flaws with census methodology and its negative effect on the accuracy of census data); D'Vera Cohn, *Imputation: Adding People to the Census* (Pew Research Center, May 4, 2011) (discussing statistical technique called "imputation" to fill in missing Census data, *i.e.*, people and their ethnic and social characteristics, and noting "[t]he number of imputed people tends to be higher among hard-to-count groups such as ethnic and racial minorities.").[10]

And while this Court has held that the Census data must nevertheless be used in apportioning members of Congress among the various states each decade, *Dept. of Commerce*, 525 U.S. at 316, it remains the case that the well-known inaccuracy of Census data means that, at its most basic level, even contemporaneous regression analyses based on the Census will have a built-in error in the independent variable.

And, of course, that inaccuracy only grows over the course of the decade. Legislative districts are generally drawn to last for an entire decade, and while the courts indulge in the "fiction" that a district's demographics

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[10] *See also* Thomas L. Brunell, *Using Statistical Sampling to Estimate the U.S. Population: The Methodological and Political Debate Over Census 2000*, 33 PS: POL. SCI. & POL. 775 (2000); Thomas L. Brunell, *Making Sense of the Census: It's Political*, 33 PS: POL. SCI. & POL. 801 (2000).

remain unchanged during that decade, *see Ashcroft*, 539 U.S. at 488 n.2 (2003), everybody knows that is not true. For example, the voting age population reported in the Census will absolutely have changed in the course of a year, much less a decade. And every redistricter has encountered the circumstance of a new neighborhood or development that was not in existence when the Census was conducted, or has disappeared since the Census was taken. (As a particularly extreme example, consider the impact of Hurricane Katrina on the population of New Orleans.) Thus, Census data become ever less reliable for identifying the demographics of the basic geographic areas that must be used to conduct the regression analysis. VAP collected by the Census in 2010, and released in 2011, cannot accurately tell us the demographic make-up of a census block or precinct during an election in 2016 – or 2006.

2. Margins of error for the American Community Survey.

There are ways to try to deal with this temporal mismatch, but they come with their own problems. For instance, unlike the Census, which only occurs once per decade, the Census Bureau's American Community Survey ("ACS") is collected on an ongoing, annual basis. However, also unlike the Census, the ACS is not a complete enumeration of the population. It is a survey of approximately 1 million households per year, nationwide, which – like any survey – has an inherent margin of error. For large geographic areas – for example, a State or very populous county – that margin of

error may be relatively narrow, but the smaller the geographic area, the larger the margin of error (because there will be fewer actual survey respondents, and maybe none, in that smaller area – *i.e.*, a smaller sample size). Various other methodologies applied by experts for temporally "advancing" the Census data to account for its growing unreliability are simply arbitrary. *Cf. Perez v. Pasadena Indep. Sch. Dist.*, 165 F.3d 368, 373 (5th Cir. 1999), *cert. denied*, 528 U.S. 1114 (2000) (affirming district court's refusal to accept straight-line projections to update 1990 Census data to 1997-1998).

3. Disaggregation and Re-aggregation of Data.

Moreover, the ACS is not reported at the Census block level. (Census blocks are the smallest geographic unit for reporting Census data – about the size of a city block – and are typically the building blocks for redistricting). That means, to be usable for regression analysis, ACS data must be extrapolated from some larger Census geography (block groups or tracts) and somehow attributed to the Census block level. Often this is done by merely assuming that all blocks in a block group or tract have the same demographic characteristics as the larger geography, though that is rarely the case. This attribution process not only enhances the error inherent in the ACS data, it hides the error because it can no longer be calculated.[11]

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[11] Other techniques for attributing ACS data to Census blocks exist as well, but all suffer the same fundamental flaw.

Moreover, voting geography and Census geography often do not match. Election results are reported by precinct, a geography that may change between elections to reflect migration patterns or consolidation for different elections. Such changes are generally not a statewide project, but the responsibility of local election officials. Census geography *may* include Voting Tabulation Districts ("VTDs"), an approximation of precincts at a point in time, but even when present,[12] VTDs will typically only match the actual precincts at the beginning of the decade, until the precincts change. Precints can and regularly do change for each election. Additionally, Census blocks normally follow physical lines such as streets, but precinct geography boundaries may run in the middle of a census block so that houses on either side of the street are in the same precinct even though they are in different census blocks. The precinct-level election results, of course, remain unchanged, while the voter demographics reflect an attempt by the analyst to approximate the characteristics of the voters in the underlying contemporaneous precinct geography, which has very likely changed since the election. Quite often there is no map of the old contemporaneous precincts from, for example, eight or ten years earlier, and certainly not in digital form, that can be recovered for the purpose of regression analysis of that historical election. Often, local elections officials purposely destroy outdated maps to avoid confusion.

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[12] VTDs are not available for all states; states must ask the Census Bureau to create them and provide the necessary boundaries. VTD geography has not historically existed for California, for example.

Thus, to conduct a regression analysis one should either try to re-aggregate Census data from Census blocks into ever-changing voting precinct geography, or disaggregate election data from voting precincts into incongruous Census block geography. Otherwise, one is mixing apples and oranges. In either case, however, one must make assumptions about (for example) how many voters in a given precinct are also residents of an overlapping, but not coterminous Census block, and how those voters voted. This, too, introduces additional inaccuracy into the regression estimates.

4. Differences Between Total, Voting Age, Eligible Voter, Registered Voter, and Actual Voter Populations.

The 65% rule discussed above is premised on recognition that a precinct's *total* Black population is different from the *voting age* population, which is different from the *eligible voter* (*i.e.*, citizen voting age) population,[13] which is different from the *registered voter* population, which in turn is different from the voters who actually cast ballots (which, due to down-ballot roll-off and similar effects, is often different from

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[13] The difference between the voting age population and the eligible voter population is particularly pronounced in states with large populations of non-citizens. Because the Census does not include a question regarding citizenship, the only source of such data is the ACS, which has the issues discussed above. *See Reyes v. City of Farmers Branch*, 586 F.3d 1019, 1023 (5th Cir. 2009) (holding that voting rights claims in Texas must be analyzed with reference to CVAP instead of merely VAP); *Barnett v. City of Chicago*, 141 F.3d 699, 704 (7th Cir. 1998) (same); *Negron v. City of Miami Beach*, 113 F.3d 1563, 1569 (11th Cir. 1997) (same).

voters who vote for any particular office on the ballot). When conducting a regression analysis in an attempt to discern how voters of different races voted in a particular contest, ideally one would want to know the ethnicity of the voters actually voting in that race, because it is the behavior of that subgroup that one is trying to estimate. However, many States, including Virginia, do not keep track of registered or actual voters by race. Nor does the Census or ACS. Thus, even if Census or ACS data can suggest the demographic characteristics of the total population or even voting age population of a given precinct, there is no source of data for accurately determining the demographic make-up of the actual electorate, which will ultimately determine if a given district is an "effective" minority "ability to elect" district. Consequently, any regression analysis will necessarily have to use the demographic characteristics of a population that differs from the population that one is trying to study.[14]

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[14] In states with substantial Hispanic or Asian populations, like California or Texas, consultants may try to solve this problem by engaging in "surname matching" – comparing the surnames of registered or actual voters with lists of Hispanic or Asian surnames published by the Census Bureau. However, this comes with its own problems, particularly where there is substantial intermarriage. For example, it will count an Hispanic woman who marries a non-Hispanic man and takes his surname as non-Hispanic, and vice versa. There are also issues in areas with substantial Filipino population, which is part of the Asian minority as defined by the Census Bureau, but which has a high proportion of Hispanic surnames. *See Wilson v. Eu*, 823 P.2d 545, 566 n.11 (Cal. 1992). Similar issues exist with surnames that appear on the Census list but that could also be Italian, French or Portuguese. The "omission error rate (Hispanic persons misidentified as non-Hispanic)," and the "commission error rate (non-Hispanic persons

5. Difficulty in Finding Appropriate Elections to Analyze.

To estimate how future elections in a given electoral district are likely to proceed, one analyzes other past elections in that district. Thus, the courts have held that the most probative elections for a voting rights analysis are relatively contemporary elections for the specific office that is the subject of the analysis – so called "endogenous" elections. *See, e.g.*, *Johnson v. Hamrick*, 196 F.3d 1216, 1222 (11th Cir. 1999); *Shirt v. Hazeltine*, 461 F.3d 1011, 1020-21 (8th Cir. 2006). And elections which present a racially-contested election (*i.e.*, a minority candidate vs. a non-minority candidate), ideally for an open seat to eliminate the effects of incumbency, are especially probative. *See id.* In Virginia, such elections are difficult to come by, and in this case and other cases in which districts have been newly redrawn after the Census, there were *no* endogenous elections because the districts were brand new.

For one thing, the primary is optional to the party, and sometimes to the incumbent. Code of Va. § 24.2-509. The rate of uncontested elections for legislative seats in Virginia is high. Elections for the House of Delegates occurs every other year, either coincident with elections for the Senate, or with elections for the three statewide offices, thus producing different electorates

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misidentified as Hispanic) . . . do not necessarily offset each other." *United States v. Alamosa County*, 306 F. Supp. 2d 1016, 1022 (D. Colo. 2004). These problems have led lower courts to treat surname matching as "problematic" and as "disfavored." *Rodriguez v. Bexar County*, 385 F.3d 853, 866 n.18 (5th Cir. 2004).

every other election, depending in part upon the top-of-the-ticket race. In any case, holding elections in odd-numbered years depresses turnout of all racial groups, making other even-year elections, for example, for President or United States Senator with significantly higher turnout and fueled by nationwide issues, not very informative about racial voting patterns for a House of Delegates district.

Distinct from, but related to, this issue is the fact that conducting a regression analysis to determine the effectiveness of *proposed* majority-minority legislative districts can only be done using exogenous elections, either from prior mismatched legislative elections or from other elections in which all the voters in the proposed district actually voted, such as statewide elections. As to the former, any district boundary change means that some of the voters in the proposed district will have voted in one legislative district over the past decade, and that other voters in the proposed district will have voted in one or more different legislative districts over the past decade. Thus, to conduct a regression analysis for a proposed district using past legislative elections, a statistician has no choice but to try to cobble together disparate election results from multiple legislative elections (which may not have been contemporaneous, even assuming one or more pertinent elections were not uncontested).

The expert could try, instead, to use statewide elections, but those typically present different dynamics from more local legislative elections (*e.g.*, higher profile, more campaign spending, national interest, etc.),

limiting their usefulness for predicting the effectiveness minority voting strength in legislative elections.[15]

B. Uncertainty Also Exists As A Result Of The Fundamental Assumptions That Underlie The Regression Techniques.

Even if one had perfect data, regression analysis still would not be guaranteed to perfectly estimate voting behavior, because it relies on a fundamental assumption that may be (likely is, in many cases) untrue. The regression analyses used in voting rights cases indulge the assumption – because they must – that non-minority voters in predominantly minority areas vote like non-minority voters elsewhere, and that minority voters in predominantly non-minority areas vote the same as minority voters elsewhere, rather than like their non-minority neighbors, with whom they may share common income levels, schools, social networks, places of employment, and other socio-economic characteristics.[16] In other words, it assumes that minority (in this case Black) voters will vote like other Black voters simply because they are Black, though in fact,

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[15] *Cf. Nipper v. Chiles*, 795 F. Supp. 1525, 1535 n.8 (M.D. Fla. 1992), *aff'd sub nom., Nipper v. Smith*, 39 F.3d 1494 (11th Cir. 1994) (en banc), *cert. denied*, 514 U.S. 1083 (1995) (rejecting attempts to use election results from "Rev. [Jesse] Jackson's partisan, high profile, presidential election for the purpose of showing racial polarization in circuit and county judicial elections," which are lower-profile and nonpartisan, as "misleading").

[16] *See* Christopher S. Elmendorf, Kevin M. Quinn & Marisa A. Abrajano, *Racially-Polarized Voting*, 83 U. Chi. L. Rev. 587, 670-80 & Appx. A (2016).

Black voters in a racially-mixed affluent neighborhood may have very different views, interests and voting patterns than Black voters in less racially-mixed or economically depressed parts of the State. This is the well-known problem of "aggregation bias," which is a problem that arises from attempting to infer individual voting behavior from aggregate-level behavior, or, in other words, in predicting how *individual* voters of different races voted in an election by looking at the demographic characteristics and voting behavior of a precinct with many voters.[17]

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[17] *Id.* at 671 ("the model does assume that support for each candidate by racial group does not vary in any systematic way across precincts. For example, minorities in relatively affluent and racially integrated precincts are treated as politically indistinguishable from minorities in poor, racially homogeneous precincts."); *see also id.* at 591 ("so long as polarization findings continue to be based on 'voting preferences expressed in actual elections,' those preferences must be estimated, and the estimation of candidates' vote shares by racial group from ballots cast in actual elections depends on strong assumptions about political homogeneity within racial groups across geographic areas. These assumptions are close kin to those the Supreme Court disavowed in the recent case of *League of United Latin American Citizens v. Perry*[, 548 U.S. 399 (2006)] ('*LULAC*')." (footnotes omitted)); *LULAC*, 548 U.S. at 433 (Kennedy, J., concurring) ("The recognition of nonracial communities of interest reflects the principle that a State may not 'assum[e] from a group of voters' race that they "think alike, share the same political interests, and will prefer the same candidates at the polls."' [Citations.] In the absence of this prohibited assumption, there is no basis to believe a district that combines two farflung segments of a racial group with disparate interests provides the opportunity that § 2 requires or that the first *Gingles* condition contemplates.").

A related issue in this case is that various computer systems for redistricting use different aggregations to determine minority population figures. The 55% guideline was measured by the Virginia Department of Legislative Services ("DLS") using Census data and redistricting software called AutoBound that treated Hispanic Blacks and non-Hispanic Blacks as part of the same racial group. *See Bethune-Hill*, 141 F. Supp. 3d at 519-21; Trial Tr. 280:18-281:25 (Del. Jones). But it is not necessarily the case that these groups will vote alike. *See Growe*, 507 U.S. at 41 (assuming that the combination of two minority groups is an appropriate basis for voting rights analysis, but concluding that in such cases there is "quite obviously a higher-than-usual need" for a showing of actual cohesion); *Badillo v. City of Stockton*, 956 F.2d 884, 891 (9th Cir. 1992) (dismissing voting rights action for failure to establish cohesiveness of Black and Latino voters); *Concerned Citizens of Hardee County v. Hardee County Bd. of Comm'rs*, 906 F.2d 524 (11th Cir. 1990) (same). In fact, Delegate Jones testified that when he initially drew the map, three of the Challenged Districts were actually below 55% BVAP, because he used the Maptitude redistricting software, which counted only *non-Hispanic* Blacks of voting age in the BVAP. Trial Tr. 280:18-281:5. He further testified that he was surprised when DLS "had all of them above 55 percent, but that was a system [AutoBound] that they used which included, as I subsequently found out, all black which would include Hispanic which is an ethnicity, not a race, according to census." Trial Tr. 281:6-25 (Del. Jones).

In other words, the 55% threshold in the Virginia Legislature's plan is likely not even quite 55% – or cannot be assumed to be. Hence, the battle here is over a difference of less than 5%, making Appellants' insistence on ultra-precision even less achievable.

CONCLUSION

The record in this case shows that in enacting its legislative redistricting plans in 2011, the Virginia Legislature made a good faith effort to avoid retrogression of minority voting power on the one hand, without wasting minority voters' votes on the other. Consistent with the long-standing practice of legislatures and courts, it recognized that bare majorities of Black voters could not guarantee "effective" minority voting districts, and so it sought to ensure that each of the Challenged Districts maintained a BVAP slightly higher than that – around 55% – while pursuing a host of other redistricting goals in the process. To arrive at that 55% figure, the Legislature relied – also consistent with the long-standing practices of legislatures and courts – on extensive demographic and electoral data and trends, and on the knowledge of the chief mapmaker and the incumbent legislators most familiar with their districts.

Appellants herein urge that this is not enough; that the State has the obligation to engage in evermore refined analysis of the precise point at which minority voting districts become "effective," and that the

State cannot justify any consideration of race over and above that threshold. That contention, however, is inconsistent with the precedents of this Court, which counsel against creating just such a "trap for an unwary legislature." *Ala. Legis. Black Caucus*, 135 S. Ct. 1273-74. The contention further assumes – incorrectly – that States have the ability to identify with exacting precision the "tipping point" between an effective and an ineffective minority voting district. In fact, however, as discussed herein, even the most sophisticated and state-of-the-art demographic and statistical techniques available cannot parse voting behavior so finely.

Respectfully submitted,

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